



Proposed Work Plan for Identification, Inspection, and Potential Remediation/Disposal Regarding Nicor Gas Facilities

This proposed work plan sets forth the procedures by which Nicor Gas will identify and inspect Nicor Gas locations at which pressure measuring or regulating devices, instruments or other apparatuses containing mercury are or have been present. In addition, this work plan describes the remediation activities Nicor Gas will conduct where remediation is necessary. The work plan is divided into two phases: (1) identification and inspection; and (2) remediation and disposal. Each phase is discussed separately below.

→ NOT SERVICE CENTERS OR INVA/INST.?

Identification and Inspection

Nicor Gas will conduct a survey to determine whether mercury-containing pressure measuring or regulating devices, instruments or apparatuses are, or have been, present at Nicor Gas locations. The survey will include both a visual and physical examination of operation equipment to determine if any of the various pieces of equipment and/or instrumentation utilize mercury. See Exhibits 2-7. It will also include an examination of past practices of the operation at each of the inspected facilities as it relates to mercury utilizing equipment. This historical review will include interviews with current and, to the extent practicable, past employees who have knowledge regarding the past presence of such mercury containing equipment. Where mercury-containing pressure measuring or regulating equipment is identified, Nicor Gas will first determine whether such equipment at Nicor Gas facilities is still functional or has been retired from service but not removed from the site. An evaluation will also be made as to whether there are alternative devices that can replace the existing equipment that utilizes mercury.

The physical integrity of all identified mercury-containing pressure measuring or regulating equipment will be determined by inspection. In addition, the areas in and around such equipment will be visually inspected for mercury contamination, and mercury vapor readings will be taken in the immediate vicinity (within 6") of the equipment with a Jerome mercury vapor analyzer. Remediation will take place in connection with any Nicor location involving such equipment that has visible mercury present, or an average mercury reading above 0.25 mg/cu m, the NIOSH recommended 8-hour time weighted exposure limit for industrial workers.

→ ACGIH NIOSH IS .50 mg/m³

Based on preliminary information, the Nicor Gas facilities covered by this work plan can be described as those facilities commonly associated with the pressure reduction or compression of gas flow. For the purposes of identification in this plan these facilities will be referred to as "outside transmission/compressor stations" ("OTCSs"). See e.g., Exhibit 1. A typical OTCS includes the following characteristics: (1) outside chainlink fence location; (2) the presence of one or more large (6"-8") and small (1/2"-3") diameter above ground pipe runs containing valves, regulators, and other compression or pressure reduction appurtenances; (3) a building housing metering and measuring data collection

devices; and (4) private property owned by Nicor or under a restricted access agreement with other private property owners.

The Identification/Inspection phase will be completed within four weeks following commencement on October 2, 2000. In other words, assuming that the work plan is approved, Nicor Gas will complete the Identification/Inspection phase by Friday, November 3rd. This phase will be staffed by Nicor Gas and an outside firm, such as Packer Engineering. See Exhibit 8.

Remediation

Nicor Gas anticipates that ^{meanings of lower guidelines} variations in the locations and equipment involved with a facility at which the 0.025 mg/cu m standard identified above may necessitate case by case review. In addition, Nicor Gas requests and reserves the opportunity to supplement this plan following consultation with IT Corporation (see Exhibit 9), the outside contracting firm which Nicor Gas has retained under approval by the plaintiffs.

As a practical matter, a remediation operations plan can only be developed after the initial inspection plan is underway and prior to conducting remediation activities. Nonetheless, this operations plan will address the removal of mercury-containing equipment, if necessary; the handling and disposal of any mercury recovered from removed equipment; decontamination and sealing of mercury-impacted equipment and surfaces; and the removal and disposal of mercury-impacted equipment and surfaces.

At this point, the remediation of the areas with greater than 0.025 mg/cu m in the Nicor Gas facilities will likely involve decontamination of semi-porous (concrete, fiberglass, asphalt, wood, etc) and metal surfaces and the removal of porous material (gravel and soil). The semi-porous and metal surfaces will be vacuumed with a mercury vacuum, containing a mercury trap, carbon filter, and high efficiency particulate air filter. These surfaces will then be washed with damp clothes wetted with commercial mercury decontamination solution and allowed to dry. The surfaces will then be re-vacuumed and surveyed with a Jerome mercury vapor analyzer. Mercury readings will be taken within 6" of the surface. Any areas exhibiting more than 0.025 mg/cu m will be decontaminated again. Surfaces still requiring decontamination will be sealed with a commercial sealer. ² The decontamination wipes will be collected, characterized as hazardous or non-hazardous by the Toxicity Characteristic Leaching Procedure, and disposed of in an appropriate approved disposal facility.

Porous surfaces (e.g., gravel and soil surfaces) above the limit will require removal. Based on Jerome instrument readings, the area of concern will be identified and marked with paint. Poly-lined nylon tote sacks or drums suitable for transport and disposal of mercury will be used to containerize contaminated porous material. Once identified field crews will manually remove the gravel layer taking care to work from the outer edges inward of the marked areas of concern. Removal of gravel layer is required in order to expose the underlying soil for removal. After the gravel is removed, the underlying soil area will be visually inspected for mercury droplets and evaluated with

the Jerome meter and removed in one-inch lifts. If droplets are present, then the mercury vacuum will be used to remove the droplets prior to excavation. Where soil conditions permit, only flat shovels will be utilized to remove soil. Undercutting of the surface soils with flat shovels will limit excess soils removal and help reduce downward migration of mercury contamination. Restoration of areas of concern will be coordinated with Nicor.

The decontamination wipes, soil, and gravel will be collected, characterized as hazardous or non-hazardous by the Toxicity Characteristic Leaching Procedure, and disposed of in an appropriate approved disposal facility.

Remediation activities will be staffed by Nicor Gas personnel who have been trained to manage the environmental and mercury-related activities called for in this plan, with assistance and supervision by IT Corporation. Nicor Gas intends to begin the remediation process promptly following the identification of any location with mercury vapor greater than 0.025 mg/cu m. To the extent practicable, remediation activities will be commenced at each location within 1 week after the need for remediation is confirmed, and shall be completed within 3 weeks after the commencement date.

- SOIL CONT. SAMPLING
- MAY HAVE TO USE A R30 CLEANUP LEVELS (OR AT LEAST 61 ppm)

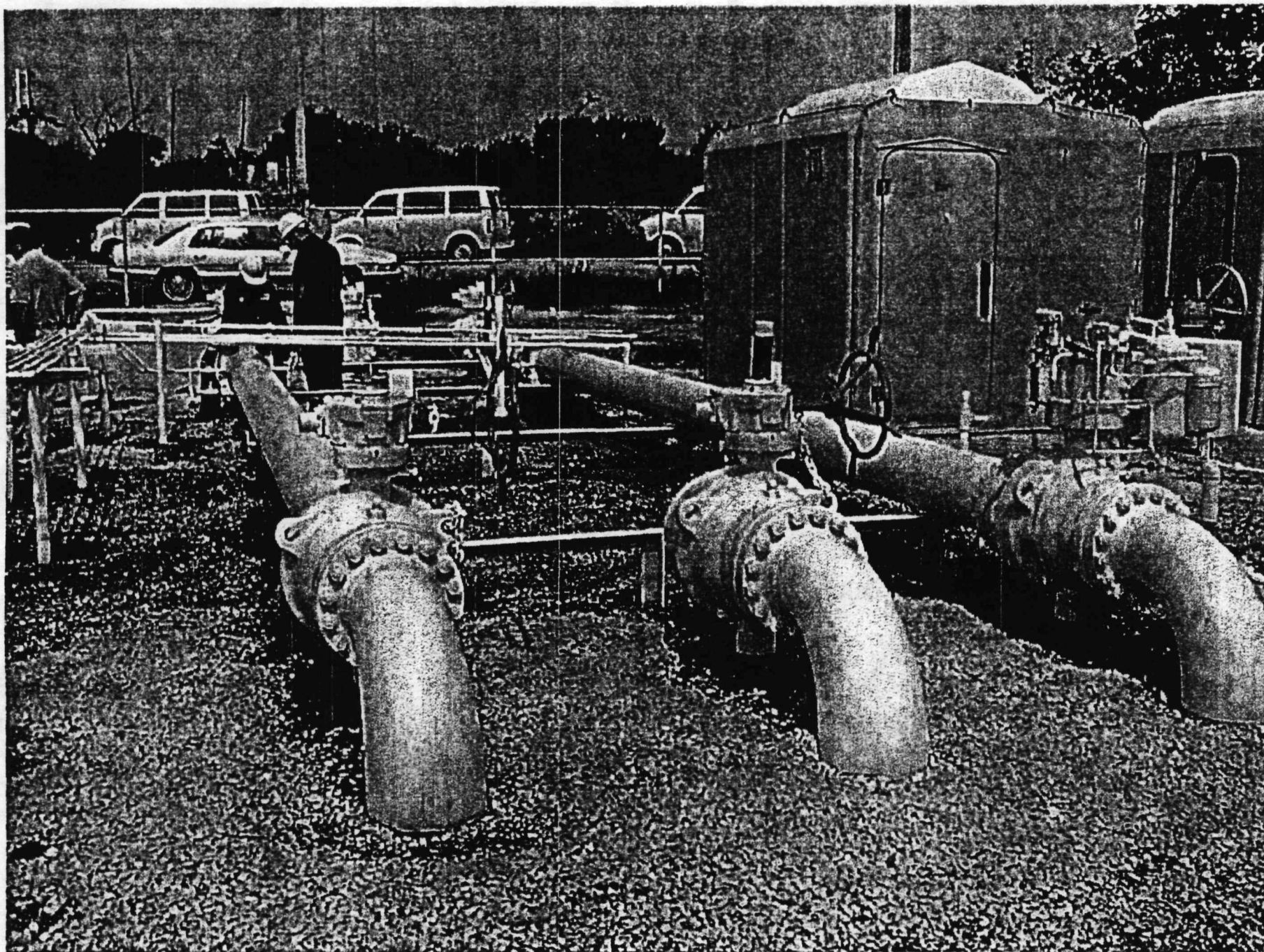
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EXHIBIT

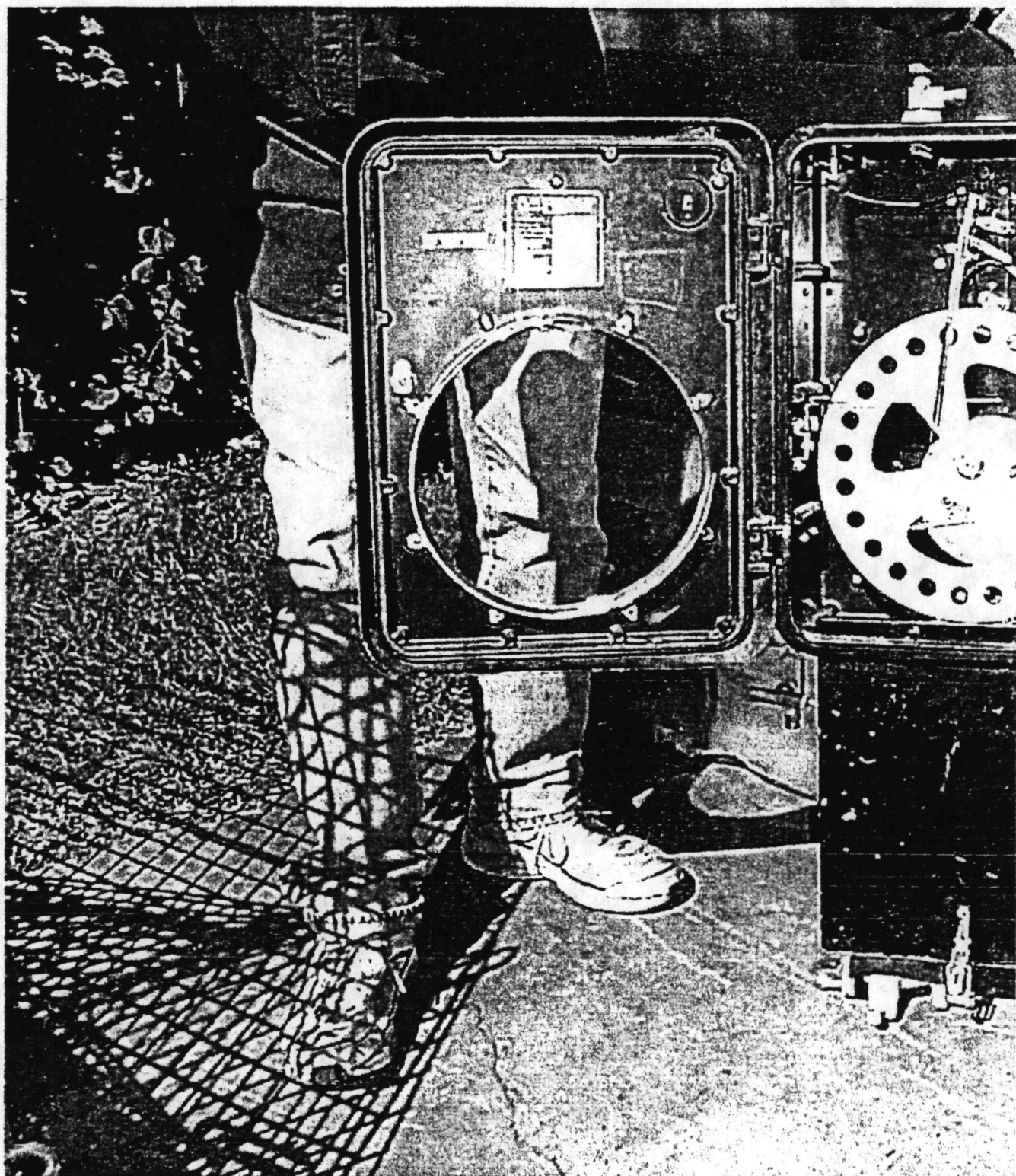
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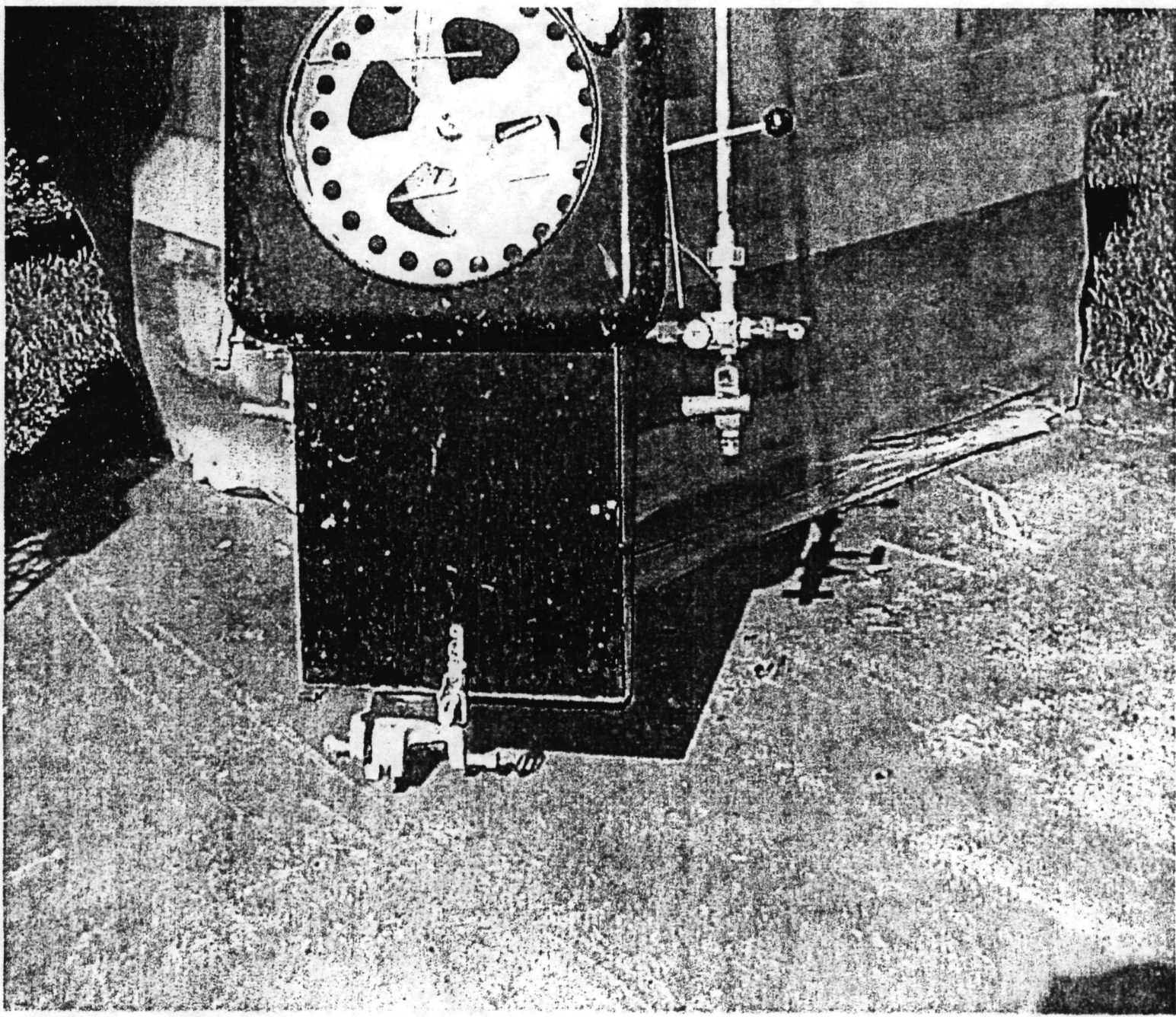


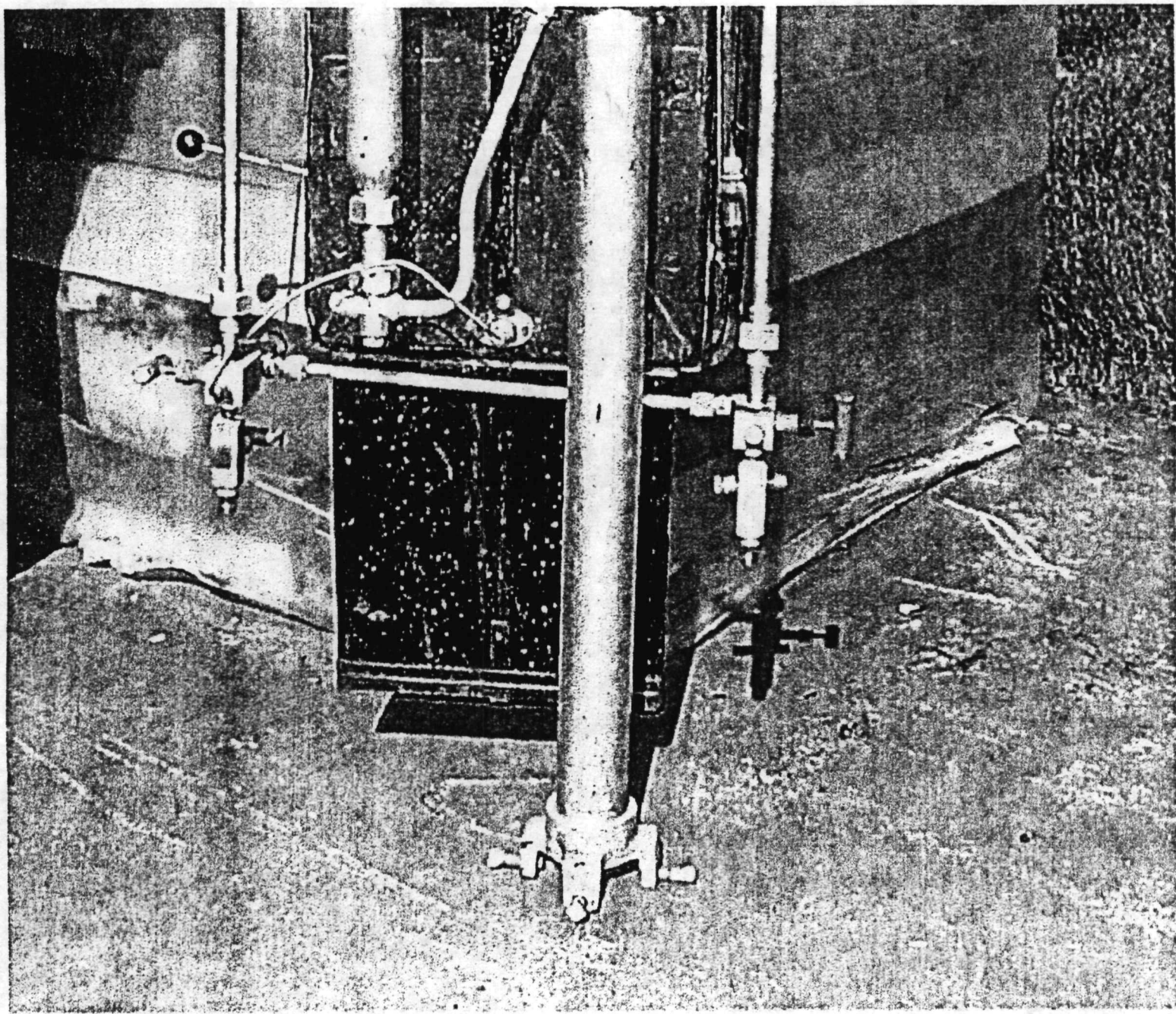
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EXHIBIT

2







EXHIBIT

3

Series 530 PRESSURE RECORDERS

8-inch round-chart recorders for pressure, vacuum and compound pressure and vacuum measurement. Available with 1 or 2 recording pens.

GENERAL

Measuring Elements

The superior performance of Bristol* pressure gauges is due primarily to their high quality measuring elements. Every element is factory-calibrated to an accuracy of $\pm 0.5\%$ of span and built to maintain this accuracy under most adverse environmental conditions. The range limits of each element are chosen so that it operates at stresses well below its elastic limit. This not only allows the use of suppressed ranges, but also provides inherent overrange protection.

Special elements are available for use where extreme overpressures are expected. Helical elements may be protected to 10,000 psi, nested capsular elements to 1000 psi.

Pressure Ranges

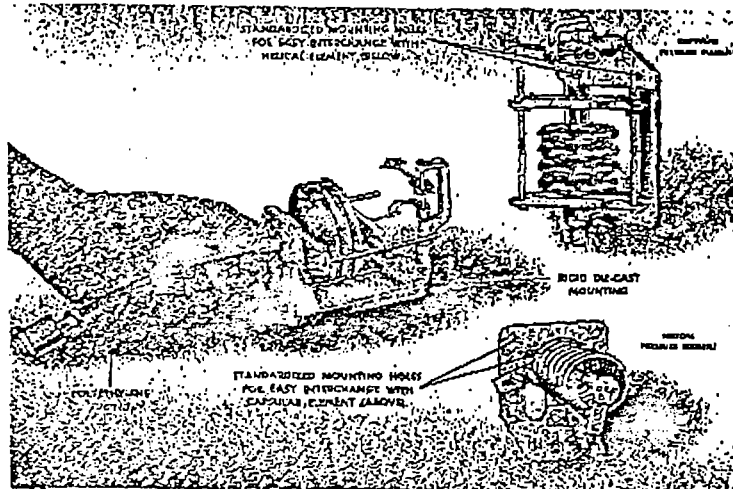
Bristol offers a standard pressure recorder for virtually every industrial application. Ranges available include 0-1 inch of water to 0-15,000 psi gauge, 0-1 inch of water to 0-15 psi vacuum.

Permanent Chart Records

Bristol recording gauges provide a complete description of both past and present conditions. The exact time and duration of each pressure variation is permanently recorded—both for immediate guidance and for long-range planning purposes.

Charts for all standard ranges are stocked for immediate shipment. Special charts can be supplied to meet specific user requirements.

*A trademark of American Chain & Cable Company, Inc.

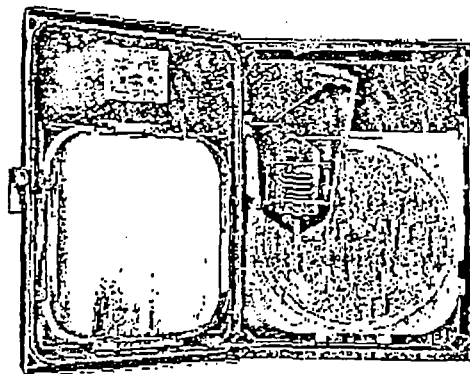


BRISTOL BABCOCK

instruments/systems

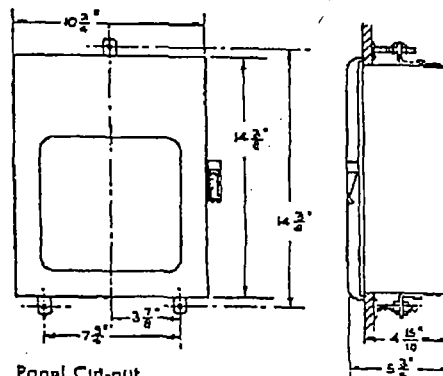


Series 530 Two-pen Recorder.



Interior view of Series 530 Recorder, cutaway showing capsular element.

OVERALL DIMENSIONS



Panel Cut-out
10 3/8" wide x 13 3/8" high.

Bristol Babcock Inc.

SPECIFICATION SUMMARY SHEET G600-9

N0007092

PRESSURE RECORDER SPECIFICATIONS

SPECIFICATION SUMMARY SHEET G600-

CALIBRATED ACCURACY

±0.5% of span.

RANGE LIMITS

15 psi vacuum to 15,000 psig.

MINIMUM SPAN

1" H₂O pressure or vacuum.

MAXIMUM SPAN

15,000 psi, pressure or compound (pressure and vacuum).

SUPPRESSED RANGES

Ni-Span capsular or helical elements, can be supplied for applications requiring up to 50% range suppression.

AMBIENT TEMPERATURE COMPENSATION

Compensator attachments are available to correct for ambient temperature variations of ± 50°F. No compensation required for Ni-Span C elements.

OVERRANGE PROTECTION

Standard capsular elements for ranges of 0-3" H₂O or greater will withstand 100% overpressure. See Product Data G601.2-2.

Nested capsular elements will withstand pressures up to 1000 psig.

Standard helical elements: overrange protection depends upon element material and range. See Product Data G601.2-4.

Overrange protected helical elements (Ni-Span C): will withstand pressures up to 15,000 psig.

MODEL NUMBERS

1-pen recorder

1G530-14

2-pen recorder

2G530-14

CASE

Rectangular, die-cast aluminum case with gasketed aluminum door. Designed for interchangeable flush or surface mounting. Gray enamel finish standard, black optional.

CASE DIMENSIONS

10 $\frac{3}{4}$ " wide x 14 $\frac{1}{2}$ " high x 5 $\frac{3}{4}$ " deep.

PANEL CUT-OUT DIMENSIONS

10 $\frac{1}{8}$ " wide x 13 $\frac{3}{8}$ " high.

WEIGHT

Approximately 20 pounds.

PRESSURE CONNECTIONS

$\frac{1}{4}$ " NPT female.

CHART

Circular, 8-inch nominal diameter.

CHART DRIVE

Mechanical or electric. Chart drive speeds from 12 hours to 8 days per rotation available with mechanical (spring) chart drive. Speeds from 96 seconds to 30 days per rotation available with 120-volt, 60 hz. a-c electric drive. Optional two-speed mechanical chart drives also available.

POWER CONSUMPTION

6 watts with 120-volt, 60 hz. electric chart drive.

MEASURING ELEMENTS

Element Type	Material	Pressure Ranges		Vacuum Ranges		Compound Spans	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
CAPSULAR	Phosphor Bronze	0-1" H ₂ O	0-30 psig	0-1" H ₂ O	0-15 psi	1" H ₂ O	30 psi
	316 Stainless Steel	0-8" H ₂ O	0-40 psig	0-8" H ₂ O	0-15 psi	8" H ₂ O	40 psi
	Ni-Span C	0-4" H ₂ O	0-210 psig	0-4" H ₂ O	0-15 psi	4" H ₂ O	210 psi
NESTED CAPSULAR	Ni-Span C	0-12 psig	0-200 psig	0-12 psi	0-15 psi	12 psi	200 psi
HELICAL	Trumpet Metal	0-30 psig	0-500 psig	Not Available		30 psi	500 psi
	Beryllium Copper	0-30 psig	0-10,000 psig	Not Available		30 psi	10,000 psi
	316 Stainless Steel	0-30 psig	0-10,000 psig	Not Available		30 psi	10,000 psi
	Ni-Span C	0-30 psig	0-15,000 psig	Not Available		30 psi	15,000 psi
OVERRANGE PROTECTED HELICAL	Ni-Span C	0-50 psig	0-10,000 psig	Not Available		50 psi	10,000 psi

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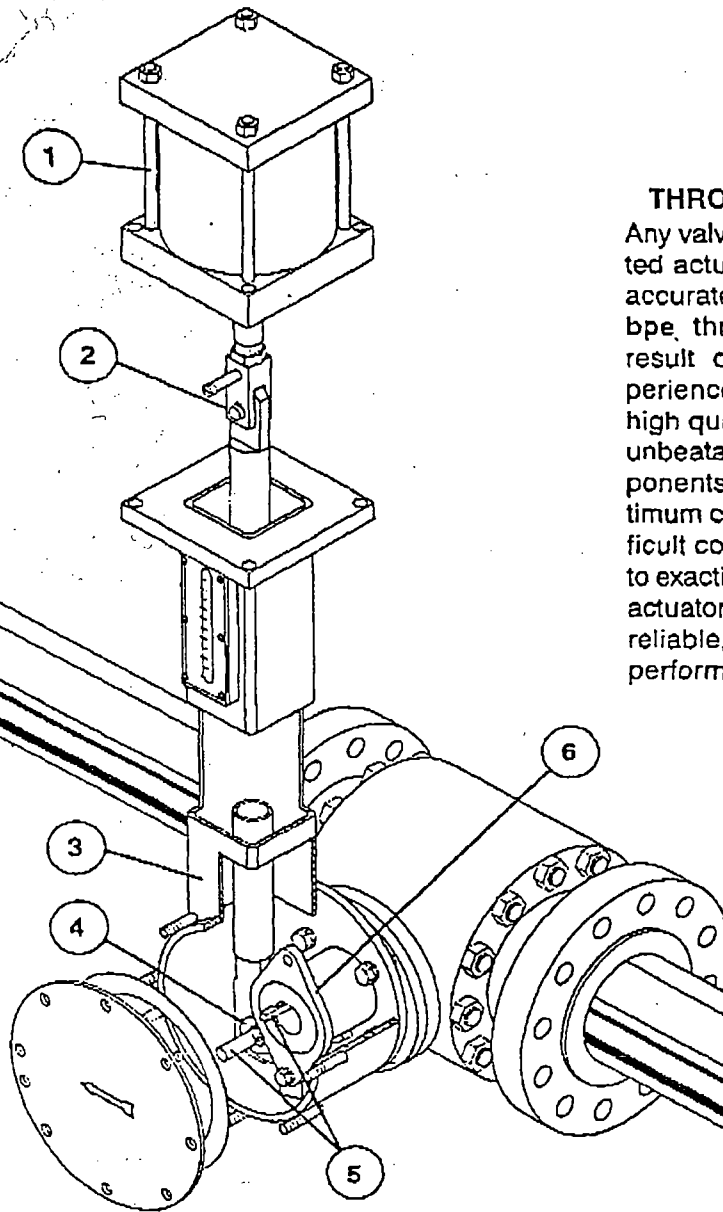
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EXHIBIT

4

BALL VALVE REGULATORS

THE bpe BALL VALVE REGULATOR COMBINES THE BENEFITS OF THE BALL VALVE WITH THE ACCURACY, RELIABILITY AND HIGH PERFORMANCE OF THE bpe THROTTLING ACTUATORS.

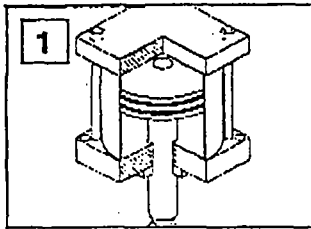


THROTTLING ACTUATOR

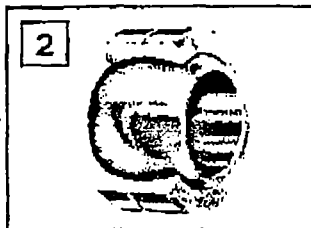
Any valve needs a well-constructed actuator in order to provide accurate, reliable control. The bpe throttling actuator is the result of four decades of experience transformed through high quality engineering into an unbeatable combination of components that will provide optimum control under the most difficult conditions. bpe's attention to exacting tolerances makes our actuator the most accurate, most reliable, most durable and best performing of any available.

bpe products are designed to keep maintenance to a minimum. Our engineers continue to evaluate new materials as they become available to provide the best possible product.

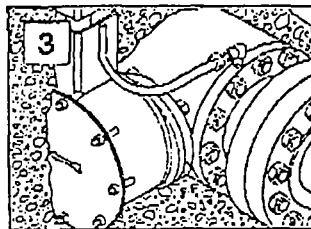
bpe

A REGULATOR IS ONLY AS GOOD AS ITS COMPONENTS.**CYLINDER**

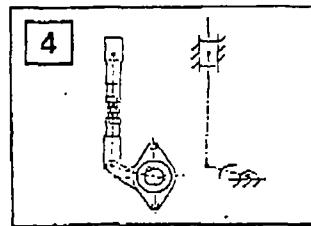
bpe pneumatic cylinders incorporate the toughest, highest quality components available. Rod bearings are non-metallic DURALON rated at 60000 psi load capacity. Rods are case hardened. Rods and tubes are chrome plated for smoothness and corrosion resistance. Tubes and end caps are all steel for operating pressures to 500 psig. Cylinders are lifetime lubricated and utilize nitrile u-cup seals for smooth operation and the lowest breakloose pressure. Standard operating temperature range is -20°F to + 200°F, with -30°F available on request.

**LINKAGE**

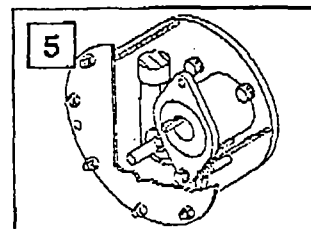
The connecting link utilizes stainless steel spherical bearings to transfer load in line with the link, eliminate corrosion and eliminate any potential binding. Pin tolerances of less than .001" assures no lost motion in the mechanism.

**DURABLE HOUSING**

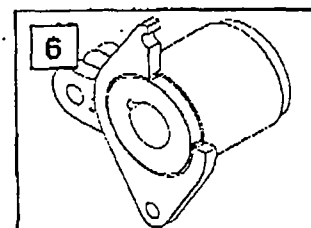
bpe uses welded steel construction for all actuator housings permitting easy adaptation for buried applications. Coatings for corrosion protection will be applied per customer specifications. A coverplate gasket inhibits ground water intrusion.

**CRANK ARM DESIGN**

Using the crank arm design bpe eliminates the wear points and lost torque of a scotch yoke mechanism. The higher torque output in midrange is ideal for modulating service because the regulator is more sensitive to small control signal changes.

**FAIL-SAFE CONNECTIONS**

The connecting link and torque arm are mated with a close-tolerance pin that cannot disengage. The pin has a mechanical retaining fastener and as an additional safety, is extra long to eliminate the possibility of disengagement. The valve stem/torque arm key is similarly constructed, and is individually fitted to ensure minimal lost motion.

**CRANK ARM BEARINGS**

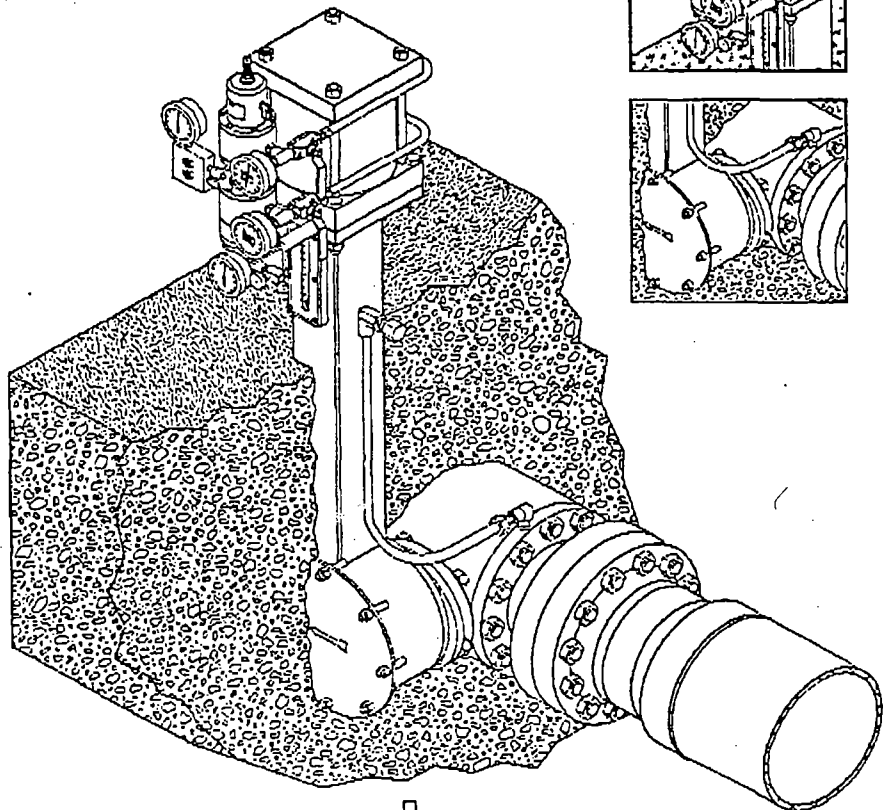
Large inboard and outboard non-metallic DURALON bearings require no lubrication. They maintain stem alignment and eliminate side load providing years of trouble-free service.

APPLICATIONS

bpe PRESSURE CONTROL REGULATOR (PCV)

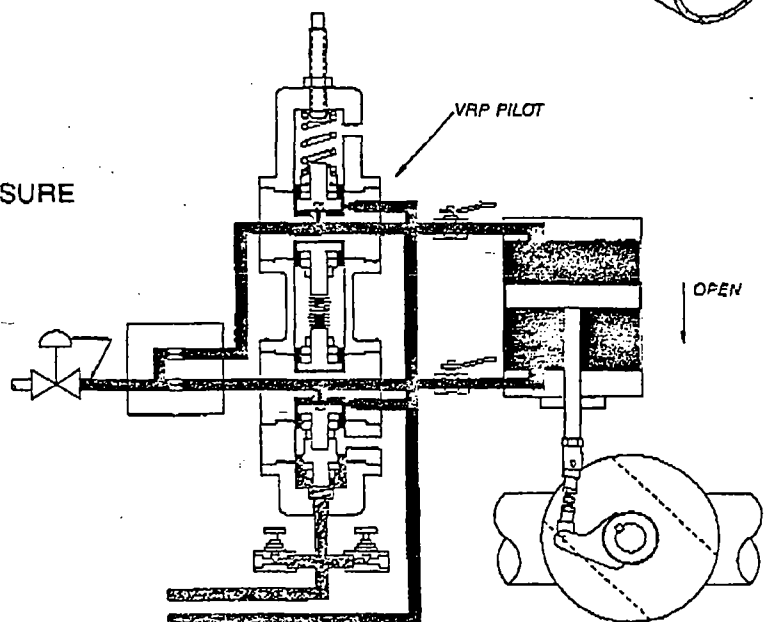
PRESSURE CONTROL REGULATORS

The optimum pressure control valve consists of a bpe Ball Valve Regulator with a bpe VRP pilot. VRP pilots hold a distinct edge over proportional controller/positioner installations when it comes to pressure control. The double-acting pilot measures set pressure directly and eliminates the need for an expensive proportional controller. Additionally, the VRP pilot provides the ability to discharge gas downstream. VRP pilots are integral instruments with a variable dampening feature. Integral control eliminates the load error common to proportional controllers. The dampening feature of the VRP eliminates overshoot during startup and load change, and provides exceptional accuracy and stability.



- PILOT SUPPLY PRESSURE
- PILOT OUTPUT PRESSURE
- MEASURED VARIABLE PRESSURE
- DISCHARGE PRESSURE

FIGURE 1 Illustrates a pressure control system with discharge into a downstream or lower pressure system. The VRP double acting pilot measures set pressure directly and eliminates the need for a proportional controller and positioner.

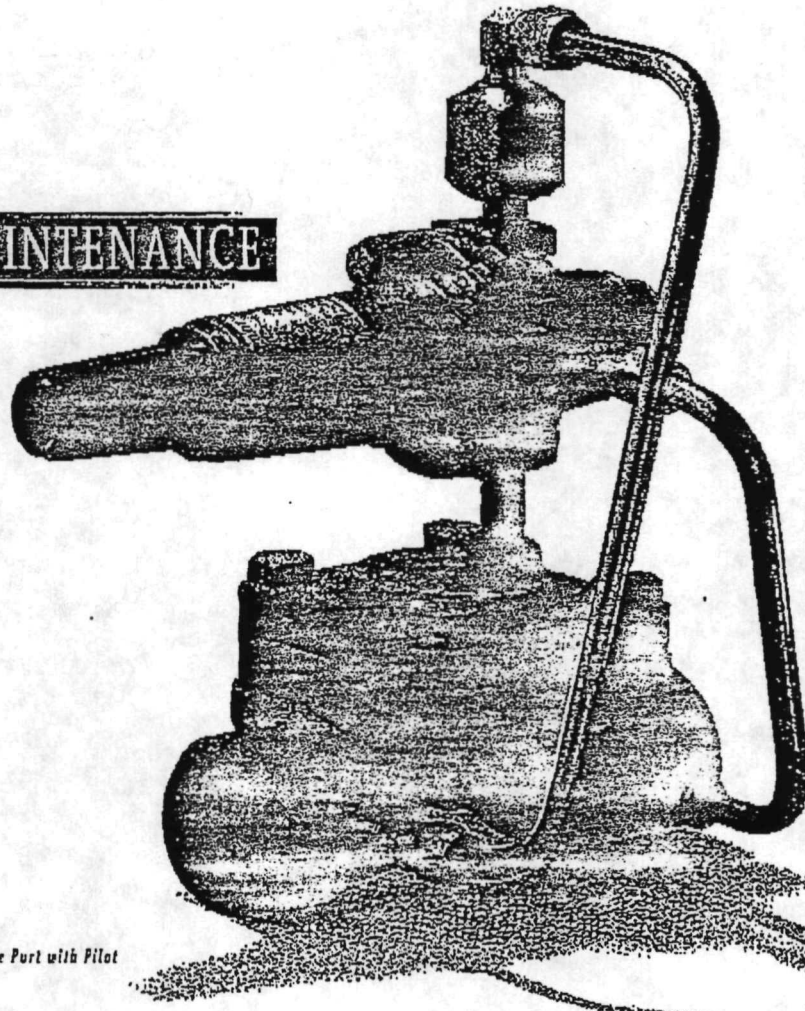


bpe

EXHIBIT

5

EASY MAINTENANCE



1" Single Port with Pilot

VALVE FEATURES

The Flowgrid Valve was designed to fill the need for an easy-to-maintain valve that would be used primarily with self-contained pilot systems for both liquid and gas applications. As a self-contained, pilot-operated device, it can offer substantial energy savings when compared to conventional air-operated or electrically operated control valves. The Flowgrid series of valves are unique in the industry and offer:

- **Simplicity of Design:** The diaphragm is the main control component of the valve and performs the dual function of both actuator and throttling element.
- **Fabric-Reinforced Throttling Element / Diaphragm:** The fabric reinforcement in the throttling element provides stability and fast response by preventing stretching. The diaphragm will not change shape or "take a set," and it is thick for durability and wear resistance.
- **Main Spring:** A unique elliptical spring provides high frequency response and proportional action for stability and a consistent minimum differential regardless of temperature. The main spring also provides a positive closing force, which is important for monitor-regulator applications.
- **In-Line Maintenance:** The Flowgrid Valve has very few parts and can be inspected or overhauled without removal from the line.
- **Low Minimum Differential:** Selection of the main spring controls the minimum differential which can be as low as 6 psid.
- **Spring Case:** The spring case is shaped to retain the main spring and has a small volume to enhance response and stability.
- **Compact Size:** The Flowgrid Valve is compact, making it ideal for installation in prefabricated systems, vaults and enclosures. It may be installed in any position.
- **Restricted Trim:** Restricted throttle plates of 35%, 50% and 75% capacity are available at low cost. Trim capacity is noted on the nameplate or body.

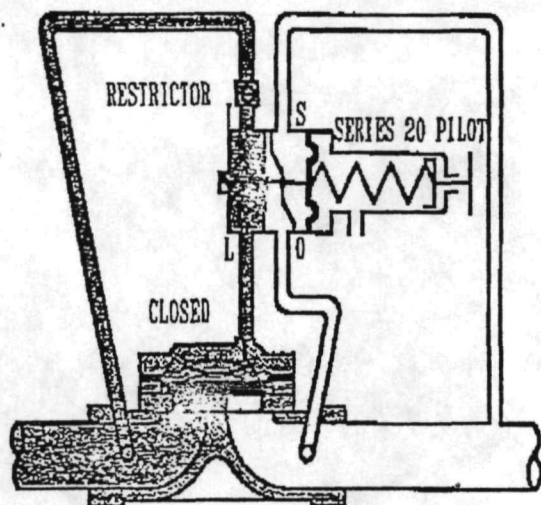


Fig. 1. Pressure Reducing Configuration Fully Closed

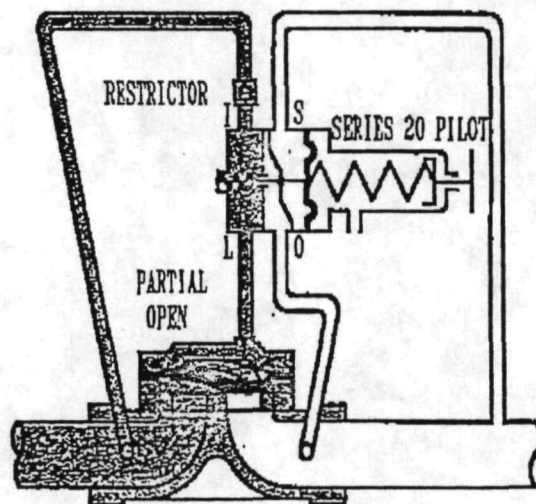


Fig. 2. Pressure Reducing Configuration Partially Open

Inlet pressure continues to pass through the restriction until the control pressure equals the inlet pressure. The spring force, plus the pressure differential across the outlet half of the throttling element, closes the throttling element against the throttling plate closing the main valve. (Fig. 1)

Adjustment of the variable restricting valve affects the response rate, stability, and sensitivity of the regulator. Smaller restrictor openings result in higher gain (sensitivity) and slower closing speeds. Larger openings result in lower gain (greater proportional band), greater stability and faster closing speed.

APPLICATIONS

The Flowgrid Valve is an extremely versatile flow-control device for liquid and gas applications. It is designed to be used in conjunction with a self-contained

pilot-control system as described in the "Principle of Operation" section. The Flowgrid Valve can handle fluids that are relatively clean, noncorrosive and compatible with the standard carbon steel/17-4ph stainless steel/nitrile-rubber construction. The normal temperature range is -20 °F to 150 °F. Contact the factory for availability in other materials.

The Flowgrid Valve is ideal for pressure reducing (PRV), back pressure or relief (BPV), flow-control, and multi-function control applications where good regulation, simplicity and ease of maintenance are of prime importance.

Selection of the proper pilot will allow the Flowgrid Valve to control practically any process variable including pressure, temperature, flow, level, etc. The Flowgrid Valve can easily be interfaced with conventional pneumatic, electronic or microprocessor-

based controllers for a variety of control applications. These applications can often result in lower overall costs and substantial energy savings.

NATURAL GAS INDUSTRY APPLICATIONS:

- ☐ District Regulator
- ☐ Monitor Regulator
- ☐ Relief Valve (BPV)
- ☐ Flow Control
- ☐ Compressor Fuel Gas
- ☐ Co-Generation Fuel Supply

INDUSTRIAL APPLICATIONS:

- ☐ Boiler Fuel Gas
- ☐ Oil
- ☐ Water
- ☐ Industrial Gases
(Air, nitrogen, argon)

OVERPRESSURE PROTECTION

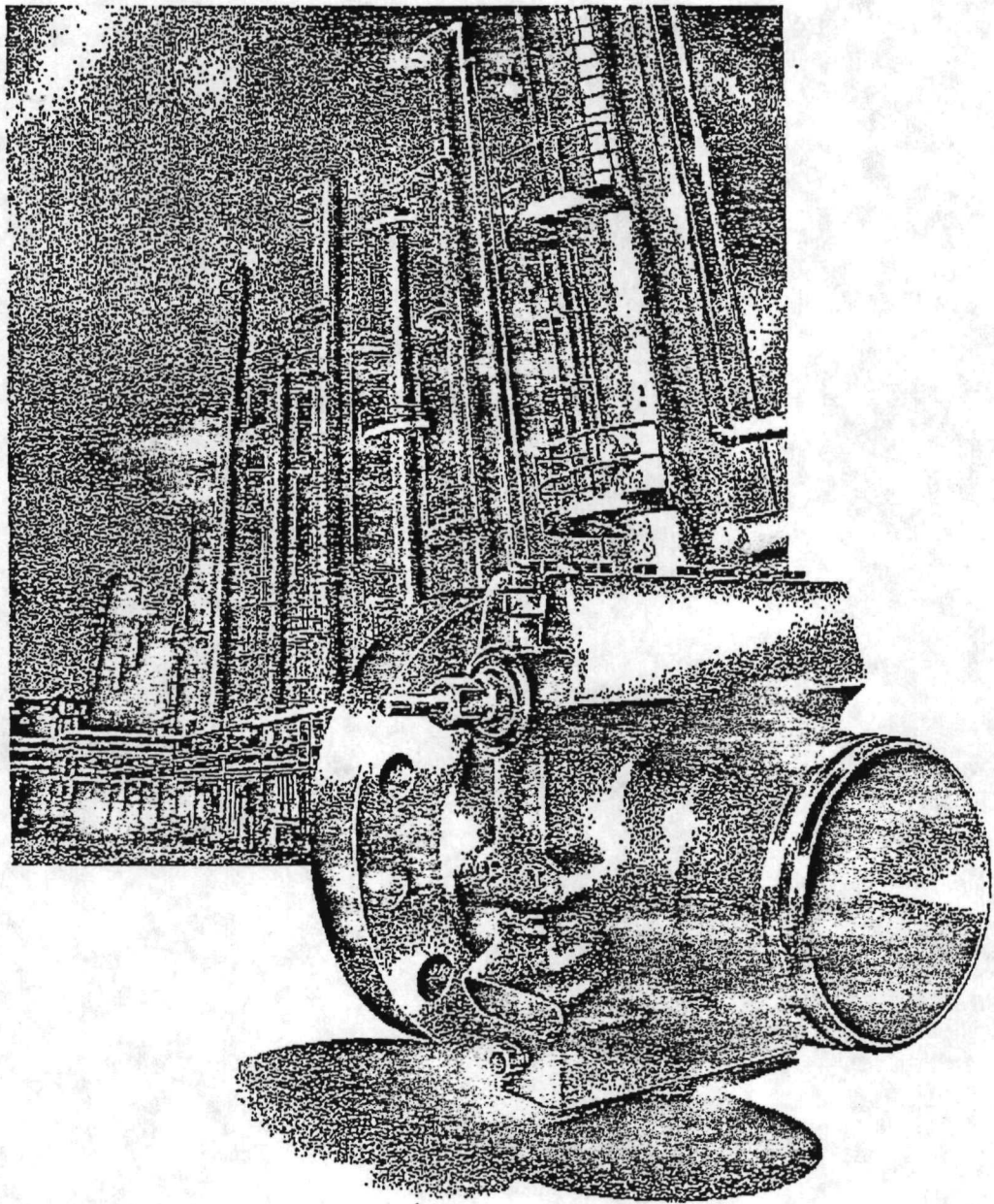
The Flowgrid Valve is bi-directional and has a full ANSI rating on both inlet and outlet. Over-pressure protection is required only if the pressure can exceed the flange or body rating.

The pilot, like most regulators, has an outlet pressure rating lower than the inlet pressure rating. If the inlet pressure exceeds the pilot outlet pressure rating, then some form of over-pressure protection must be provided for the pilot. Any time the Flowgrid Valve or pilot system is exposed to pressure in excess of its rating, it should be inspected for damage.

EXHIBIT

6

Junior Orifice Fittings



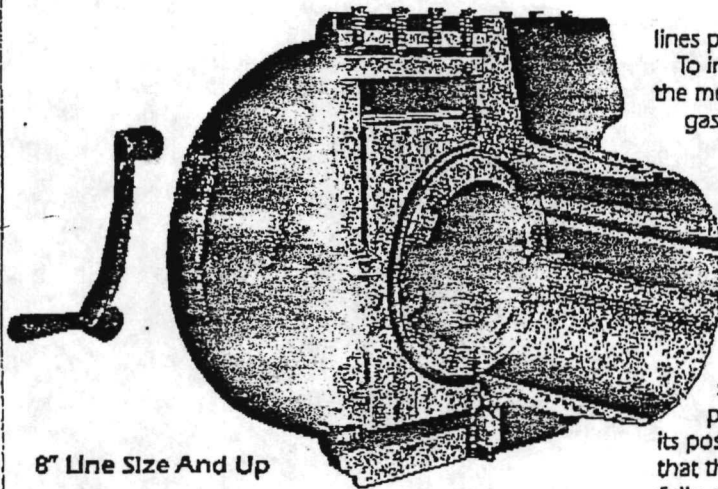
DANIEL

Flow Products

Flow Products, Inc.

N0007099

Daniel Junior Orifice Fittings



8" Line Size And Up

Accurate measurement at large volume meter stations—Safety, simplicity and ease of operation make Daniel Junior Orifice Fittings a popular choice for reliable measurement at large volume meter stations. The "Junior" is a single-chamber fitting, engineered and manufactured to make orifice plate changing quick and easy at installations where line movement from flange-spreading is undesirable. Juniors installed on liquid

lines prevent product spillage during plate changing.

To inspect orifice plate: by-pass and relieve pressure in the meter tube; remove clamping bar, sealing bar and gasket; use speed wrench to raise orifice plate carrier clear of fitting; inspect, clean and/or replace plate and sealing unit with plate inlet side facing upstream; reverse opening procedure, tighten clamping bar set screws before re-pressuring meter tube. Measurement can now be resumed with a minimum of shutdown time.

Two features of the "Junior" insure that the orifice plate will be centered as the plate carrier is seated in the fitting. (1) Special positioning set screws permanently installed at the factory impinge on the plate carrier on all four edges, fixing its position. (2) The top set screw is in the sealing bar so that the fitting cannot be sealed off unless the carrier is fully seated and centered.

Other features: With proper meter tube lengths, the Junior can be used to measure flow in either direction; all parts can be replaced on location without removing the fitting from the line; locations on fittings are provided for extra sets of pressure taps, when specified, for telemetering operations; all fittings meet or exceed the recommendations of ANSI/API 2530 (A.G.A. #3), A.S.M.E. and numerous other societies.

Sizes, Pressure Ratings and Body Styles

Junior Orifice Fittings are especially designed and constructed for large volume measurement at gathering systems, compressor stations, city gates and power plants. Line sizes begin at 8" and continue through 48". On special order, larger sizes can be supplied. All popular sizes are available in Class 150 to Class 900.

ANSI Class 1500 are available in 8" - 14" and can be supplied in other sizes on request. Body styles on popular sizes included Flanged (both ends), Flangnek and Welding Neck. Flanges may be serrated raised face or ring-type joint. Class 2500 available in 8" - 12".

8"-48" JUNIOR ORIFICE FITTING CATALOG NUMBERS

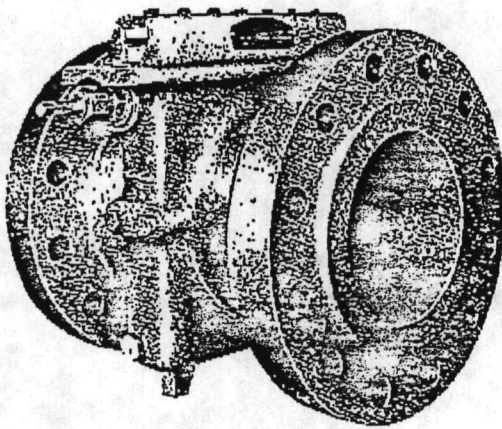
Body Style	Primary Service Pressure Rating*					
	Class 150	Class 300	Class 600	Class 900	Class 1500	Class 2500
Flanged-Raised Face	201 DS	203 DS	205 DS	206 TS	207 TS	208 TS
Flanged-Ring Joint			245 DS	246 TS	247 TS	248 TS
Flangnek-Raised Face	021 DS	023 DS	025 DS	026 TS	027 TS	028 TS
Flangnek-Ring Joint			0245 DS	0246 TS	0247 TS	0248 TS
Welding Neck	281 DVS	283 DS	285 DS	286 TS	287 TS	288 TS

*All pressure ratings not available in all sizes. (See Dimensional Charts)

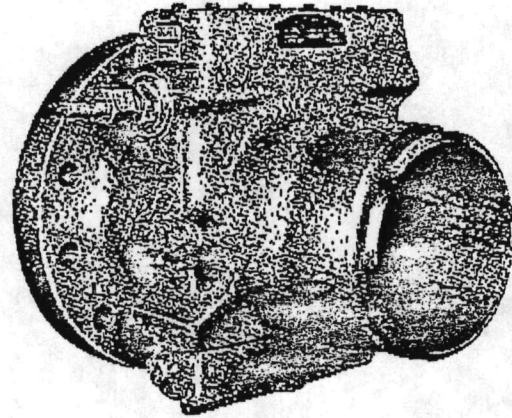
Note: Each fitting furnished with "DS" removable seal in 8" and 10" only. "DVS" bonded seal furnished in 12" and up.

Body Styles

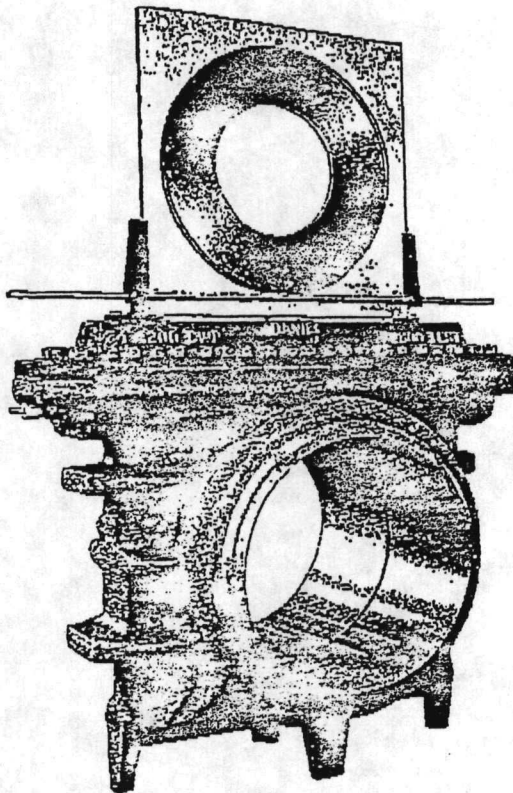
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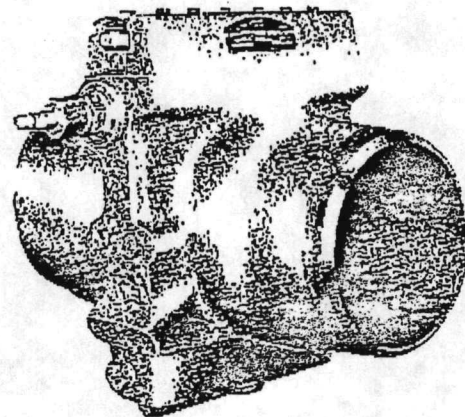
FLANGED



"FLANGNEK"



TYPE "C"



WELDING NECK

30"-48" JUNIOR TYPE "C" ORIFICE FITTING CATALOG NUMBERS

Body Style	ANSI Class Rating		
	285 C.W.P.	740 C.W.P.	1480 C.W.P.
Welding Neck	281 DVS	283 DVS	285 DVS

N0007101

EXHIBIT

7

The Company

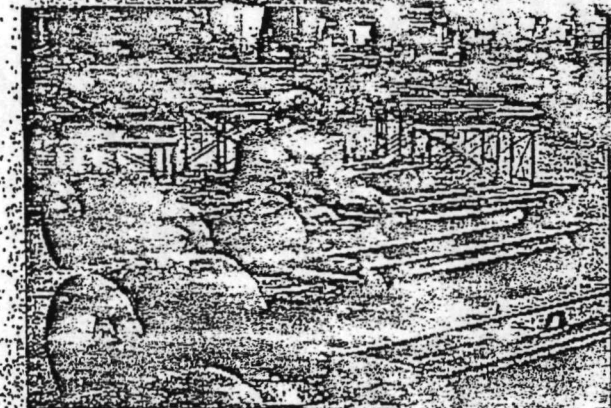
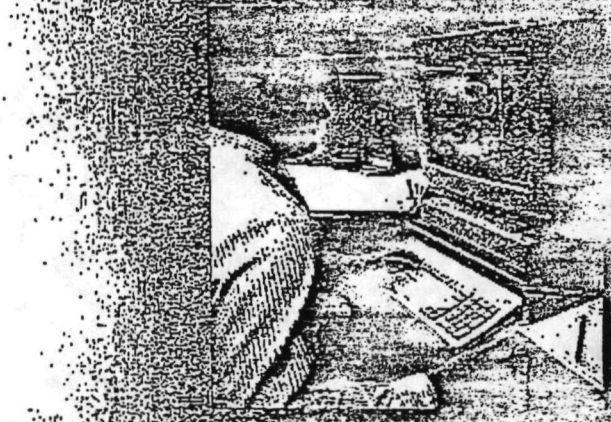
Bettis was established in 1929 as an oilfield supply house and manufacturers' representative. The company later evolved into a manufacturing organization, becoming a pioneer in the valve actuator business. Today, Bettis is the world's leading independent manufacturer of pneumatic and hydraulic valve actuators. Bettis products are used in almost every energy-related industry, including oil and gas production — both onshore and offshore — oil and gas transmission, petrochemical and petroleum refining. Other markets include chemical, power industry including nuclear, pulp and paper, food and beverage, pharmaceutical, textile and water systems.

Since Bettis' inception, it has expanded both its physical capacity and its product lines. The company headquarters in Waller, Texas, near Houston houses more than 145,000 square feet (13,470 square meters) of covered manufacturing, research, engineering and office facilities. To serve the European market, Bettis UK Ltd. has a 70,000 square-foot (6,503 square-meter) facility in Fareham, England. Bettis also maintains manufacturing facilities in Industry, Texas, Edmonton, Canada and Paris, France, coupled with a worldwide sales and distribution network that is unmatched in the industry.

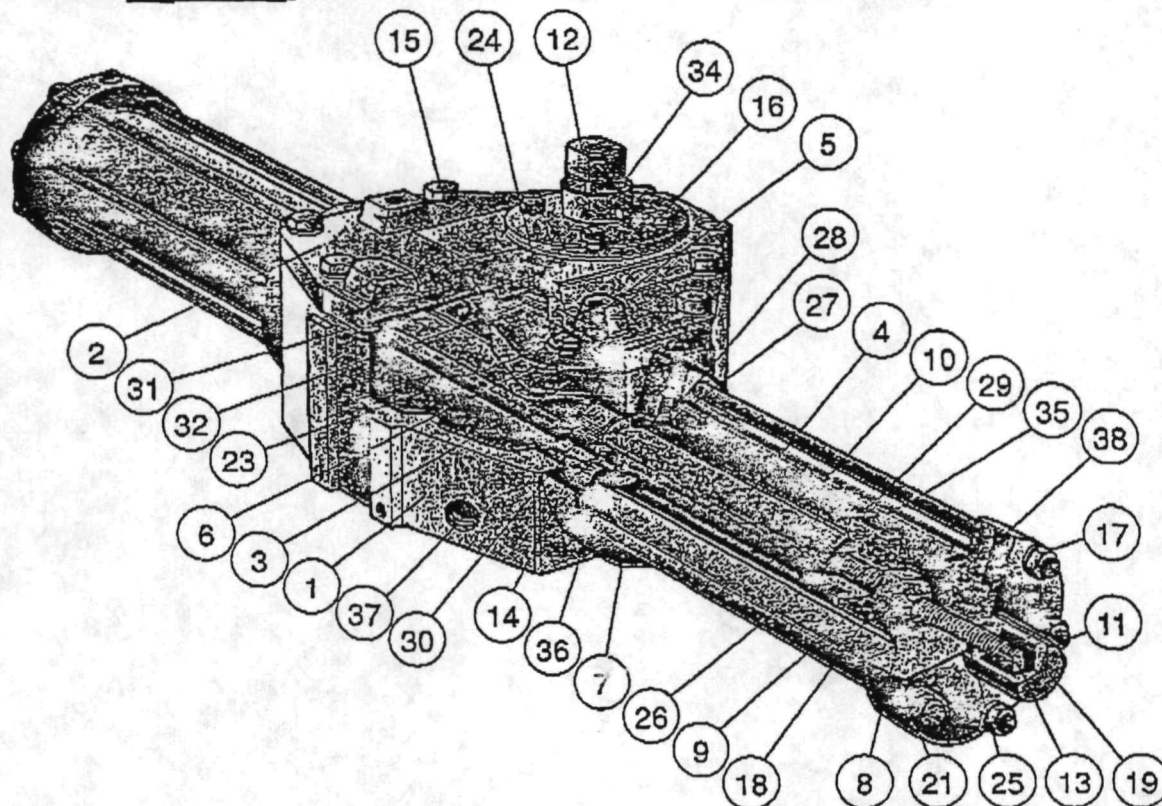
Bettis has developed a Mission Statement that serves as a guideline for all that we do. It reads: We will continue to be a world class leader in the engineering, manufacturing and marketing of automation products and related services that meet or exceed the expectations of our customers, employees and stockholders. We will operate and invest in people, products and facilities to meet financial objectives while providing a safe work place, fulfilling employment and improving the environment and communities in which we work.



A typical gas processing plant with orange actuators.



Bettis has streamlined product assembly.



Typical Gas/Hydraulic Parts List (Quarter-Turn Operators)

Material specifications are typical for operation at -50°F to 150°F (-46°C to 65°C)

Item	Description	Material	Qty	Note	Item	Description	Material	Qty	Note
1	Drive Case	Tenzaloy 713	1		30	Drive Rod Guide	Acetal	2	
2	Cover	Tenzaloy 713	1		31	Yoke Bushing	C1020	2	(C)
3	Yoke	ASTM A148 or DI	1		32	Yoke Bearing	Nylon	1	
4	Drive Rod	AISI 4140	1	(C)	34	Position Indicator	C1010	1	
5	Drive Pin	AISI 4140 Heat Treated	1		35	Piston Wear Ring	Nylon/MoS ₂	2	
6	Drive Roller	AISI 4140 Carburized	2		36	Cylinder Plate	Polypak	2	(Y)
7	Cylinder Plate	ASTM A516-70	2		37	Inspection	Molythane	2	(Y)
8	End Cap	ASTM A516-70	2			Hole Plug	Polyethylene	1	(V)
9	Piston	ASTM A516-70	2		38	NPT Port		4	
10	Cylinder	C1026	2						
11	Tie Rod	AISI 4140	16	(V)					
12	Yoke Cover	Tenzaloy 713	1						
13	End Stop	ASTM A193 Gr. B7	2						
14	Cylinder Plate								
15	Capscrew	SAE Gr. 5 Plated	6	(V)					
16	Cover Capscrew	SAE Gr. 5 Plated	10						
17	Yoke Cover								
18	Capscrew	SAE Gr. 5 Plated	4						
19	Tie Rod Nut	ASTM A194 Gr. 2H	16						
20	Piston Capscrew	SAE Gr. 8 Plated	2	(V)					
21	End Stop Cover	ASTM A194 Gr. 2H	2						
22	Tie Rod								
23	Lockwasher	SAE 1060 Plated	16	(V)					
24	Snap Ring	SAE 1075 Heat Treated	2						
25	Yoke O-Ring	Nitrile	1	(Y)					
26	End Stop O-Ring	Nitrile	2	(Y)					
27	Piston Centre								
28	O-Ring	Nitrile	2	(Y)					
29	Drive Rod Seal	Urethane/MoS ₂ /Nitrile	2	(Y)					
30	Cylinder O-Ring	Nitrile	4	(Y)					
31	Piston Seal	Urethane/MoS ₂ /Nitrile	4	(Y)					

Pressure Vessels

a) -50°F to 150°F
(-46°C to 65°C)

Shell ASME SA-333 Gr. 6
Head ASME SA-420-WPL6/
ASME SA-516-70
Fittings ASME SA-350-LF2

b) -20°F to 150°F
(-29°C to 65°C)

Shell ASME SA-106 Gr. B
Head ASME SA-234-WPB/
ASME SA-516-70
Fittings ASME SA-105/
ASME SA-350-LF2

Notes:

(C) Chrome Plated

(N) Not Shown

(Y) Spare Parts Kit

Quantity may vary depending on model

(*) Impact tested as per ASTM A370

18J average, 14J minimum, -50°F(-46°C), CVN full size

All metal parts coated with corrosion inhibitor

All specifications are subject to change or upgrade

BETTIS

Actuators & Controls

SHD-Series

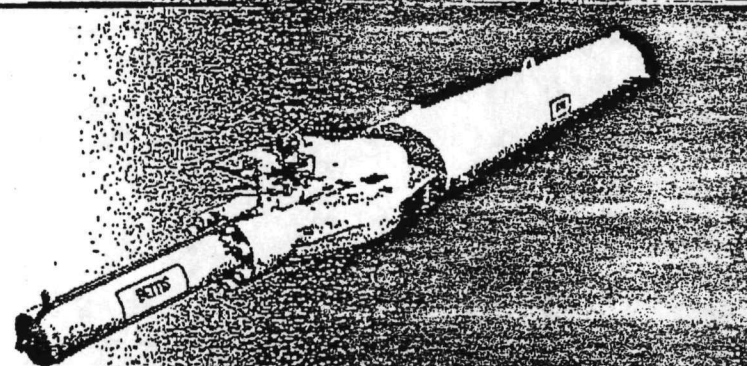
- Pneumatic and hydraulic scotch-yoke actuators
- Independently certified to BS 5490: 1977 - IP67M for ingress protection. Designed for platform, splash zone, subsea (with no depth restrictions) or other harsh environments
- Performance features are the same as the HD-Series
- Manual overrides are available



ST-Series

- Pneumatic and hydraulic scotch-yoke actuators
- Independently certified to BS 5490: 1977 - IP67M for ingress protection. Designed for platform, splash zone, subsea (with no depth restrictions) or other harsh environments
- Performance features are the same as the T-Series
- Manual overrides are available

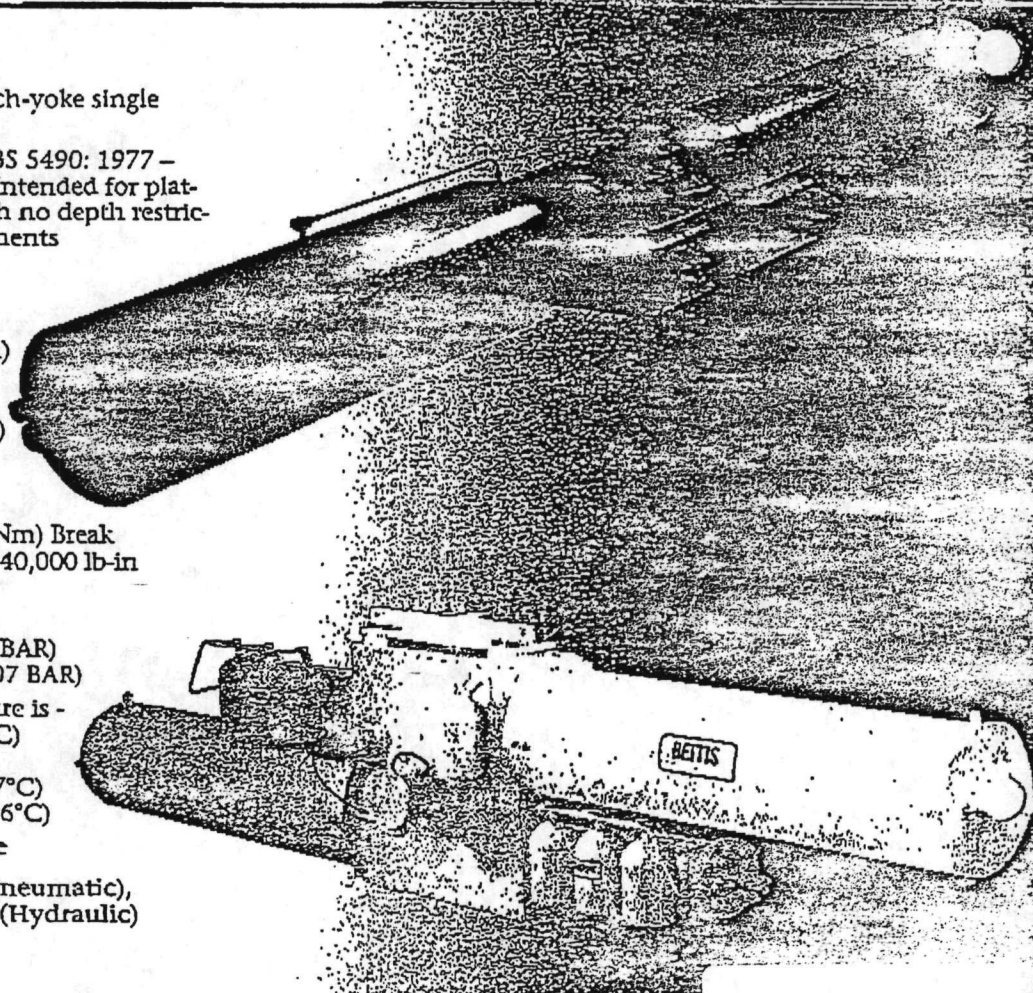
Reference Bulletins: #96.00 (Pneumatic),
#95.00-1 (Hydraulic)



STR/STRQ-Series

- Pneumatic and hydraulic scotch-yoke single arm/double arm actuators
- Designed in accordance with BS 5490: 1977 - IP67M for ingress protection. Intended for platform, splash zone, subsea (with no depth restrictions) or other harsh environments
- Output torques:
 - Pneumatic
 - Double-acting models — to 2,000,000 lb-in (226,000 Nm) Break
 - Spring-return models — to 698,000 lb-in (78,874 Nm) Spring End
 - Hydraulic
 - Double-acting models — to 2,000,000 lb-in (226,000 Nm) Break
 - Spring-return models — to 740,000 lb-in (83,620 Nm) Spring End
- Standard operating pressures:
 - Pneumatic — to 200 PSIG (14 BAR)
 - Hydraulic — to 3,000 PSIG (207 BAR)
- Standard operating temperature is -20°F to +200°F (-29°C to +93°C)
- Special trims available:
 - 0°F to +350°F (-18°C to +177°C)
 - 50°F to +150°F (-46°C to +66°C)
- Manual overrides are available

Reference Bulletins: #96.00 (Pneumatic),
#95.00-1 (Hydraulic)



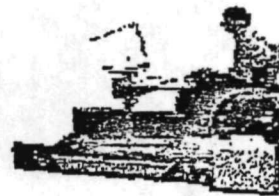
EXHIBIT

8



LABORATORY & TESTING SERVICES

Packer Engineering's Laboratory and Test Services group apply design analysis and evaluation, failure analysis, testing and other analytical techniques to studies and "realtime" problem-solving assignments involving material and material selection, manufacturing processes, machinery and mechanisms.



Among the services that Packer Engineering provides are:

- Mechanical Property Analysis such as Hardness, Tensile, Compression and Fatigue Life Testing
- Quantitative and Qualitative Chemical Analysis including SEM-EDS and FTIR
- Metallographic Examination and Non-Destructive Testing
- Corrosion Analysis and Evaluation
- Quality Assurance and Quality Control Sampling
- Reliability Modeling and Failure Mode Analysis
- Design Evaluation and Failure Prevention Studies
- Inspection Services (both on and off site)
- Industrial Process Evaluations
- Life Prediction and Extension Studies
- Most ASTM Standardized Tests related to Metals, Concrete, Fiber Reinforced Concrete, Masonry, Windows and Building Construction
- Computer Measurement (CMM)

Our portfolio includes experience with:

- | | |
|---------------------------------------|-------------------------------|
| • Pumps | • Cutters, Saws, and Blades |
| • Drills | • Coolers and Chillers |
| • Scaffolding | • Exercise Machines |
| • Punch Presses and Stamping Machines | • Fans and Blower Systems |
| • Grinders, Augers and Choppers | • Respirators and Ventilators |
| • Elevators, Hoists and Cranes | • Printing Presses |
| • Scuba and other Breathing Apparatus | • Ovens and Heaters |
| • Cardiac Pacemakers | • Carts, Dollies and Lifts |
| • Forklifts | • Plumbing |
| • Furnaces and Boilers | • Turbines and Rotors |
| • HVAC Systems | • Exterior Facades |
| • Crankshafts and Piston Systems | • Building Fenestration |
| • Injection Molding Machines | • Residential Windows & Doors |
| | • Structures |
| | • Conveyors and Belt Systems |

**PACKER
ENGINEERING**

PRODUCT AND PROCESS SAFETY ENGINEERING AND MANAGEMENT

Packer Engineering's multidisciplinary practice enables manufacturers, industrial processors, their insurance carriers, and the attorneys that represent them to access all the engineering and technical services needed to identify and address product and process safety issues. Risk managers and Loss Prevention specialists use Packer Engineering's services to prevent accidents before they happen. Quality Control and Assurance managers utilize Packer Engineering to deliver quality goods that meet and surpass standards and specifications.

Product and Process Safety Engineering and Management services include:

Reliability Testing

- Failure Mode and Effects Analysis
- Statistical Analysis of Failure Data
- Test Development and Execution

Strategic Risk Management

- Product Safety Management Programs
- Technology-Focused Competitive Intelligence
- Intellectual Property Evaluation and Management
- Product Recall Preparedness

Risk Reduction

- Design Reviews
- Warnings Design
- Safeguard Designs
- Foreseeable Misuse Analysis
- Design Standards Compliance
- Workplace Safety Audits

Product and System Safety

- Hazard Analysis
- Risk Analysis
- Fault Tree Analysis
- Cost/Benefit Analysis

Product Quality Assurance

- Inspection and Testing Sampling Planning
- Failure Identification and Corrective Action Planning
- Accelerated Product Testing
- Statistical Analysis

Design Analysis

- Performance Prediction
- Operating Procedures
- Inspection and Testing Sampling Plans
- Maintenance Procedures
- Material Selection
- Failure Tolerance Determination
- Human Factors and Ergonomics



SYSTEM FAILURE ANALYSIS AND RECOVERY

Packer Engineering's multidisciplinary practice enables manufacturers, contractors, design firms, their insurance carriers and the attorneys that represent them to access all the engineering and technical services needed to investigate system failure issues. Risk managers and loss prevention specialists use Packer Engineering's services to prevent incidents before they happen and rapidly recover from incidents while preventing reoccurrence. Manufacturers and design firms use Packer's expertise in planning and monitoring the recovery phase.

System Failure Analysis

- Process Hazard Analysis
- Procedures Review
- Management of Change
- Incident Interviews
- Equipment Failure Data and Correlation
- Maintenance Records and Practices
- Incident Investigation

Support Services

- Materials Laboratory
- Graphics Arts Department
- Skilled Discipline Consultants
- Testing Facilities
- Associates' Network
- Fire and Explosions
- Vehicular Incidents

Recovery

- Recovery Planning
- Monitoring
- Commissioning Plans
- Mechanical Integrity and Documentation
- Performance Specification
- Construction Safety
- Process Enhancements
- Capital Planning
- Project Management
- Siting Issues
- Acceptance Testing

EXHIBIT

9

IT Corporation has a dual mission:

- To preserve and protect the environment by helping our clients make positive, lasting, and substantial improvements in their environmental management practices in the most economically sound way
- To build IT as a great institution—one that will attract, develop, motivate, and retain exceptional people

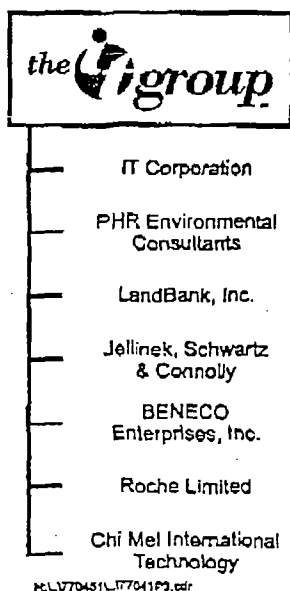


Figure 1
Members of The IT Group

Founded in 1926 as a ship's harbor cleaning company, IT Corporation (IT) has provided hazardous material removal services for over 70 years. Today, IT is dedicated exclusively to providing commercial and government clients with management, engineering, and remediation services for restoring and protecting an environment contaminated by hazardous, toxic, or radiological materials on both a planned and emergency basis. Our orientation for achieving expedited, efficient, cost-effective solutions for our clients is strengthened by our ability to provide a full range of proven and innovative cleanup methods and technologies.

IT's parent company, The IT Group, Inc., (formerly International Technology Corporation) is a Delaware corporation headquartered in Pittsburgh, Pennsylvania, and publicly traded as ITX on the New York Stock Exchange. The company's clear focus on improving the environment and enhancing sustainable development throughout the world, including engineering, pollution control, and construction and remediation services, has made The IT Group an industry leader, with annual revenues of \$1.4 billion.

Through a series of bold steps and key acquisitions, The IT Group has emerged as the industry's most comprehensive environmental infrastructure solutions firm. These carefully designed acquisitions have enhanced IT's strength in all phases of environmental management and created a more diverse company to deliver cost-effective, fast-track solutions to our clients.

- In 1999, The IT Group acquired Roche Ltd. Consulting Group, one of the largest engineering and construction firms in Canada. Through its network of international partners, Roche offers substantial technological assets and expertise in water, transportation, forestry, energy, infrastructure, the environment, and urban development, with current project experience in over 20 countries throughout Asia, Latin America, and Africa.
- Also in 1999, IT acquired the Environment and Facilities Management Group (EFM) of ICF Kaiser International, Inc. EFM is a leading provider of environmental and facilities management and technical support services for major U.S. Government agencies such as DOD, DOE, and NASA, as well as private-sector clients. The EFM acquisition adds strong project management capabilities, complementary DOD/DOE contracts, diverse private-sector client alliances, and active participation in the outsourcing and privatization markets.
- The latest acquisition in May 1999 was EMCON. EMCON is a nationally recognized leader in solid waste management and provides a complete range of environmental services. EMCON integrates traditional environmental engineering and consulting capabilities with construction, operations and maintenance.

- During 1998, The IT Group achieved two other significant acquisitions. In June 1998, we announced our merger with OHM Corporation, a well-known remediation and emergency response firm; in December 1998, we announced our acquisition of Fluor Daniel's Groundwater Technology, Inc. (GTI).

OHM, GTI, EFM, and EMCON are fully integrated into IT Corporation (IT), a wholly owned subsidiary of The IT Group. Other strategic members of The IT Group are presented in Figure 1 and discussed in Figure 2.



Figure 2
Representation of The IT Group Members

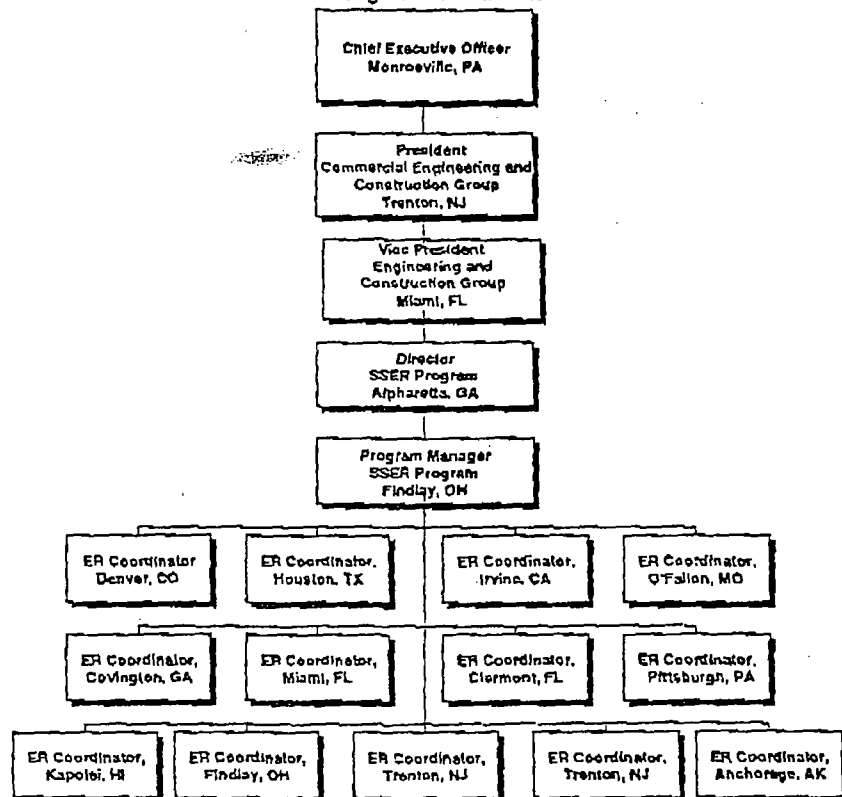
These key acquisitions place The IT Group in a leadership position in the global environmental services market by expanding our presence and commercial and government client base.

The company's resources include more than 7,000 professionals and support staff located in over 80 offices nationwide, including 13 of which are emergency response centers. OHM and IT both have a long history of providing emergency response services. The merger combined an extraordinary experience base with an excellent reputation among its clientele and financial solvency to present a new standard in how emergency response services are delivered.

2.1 SPECIALTY SERVICES AND EMERGENCY RESPONSE PROGRAM

Emergency response services are delivered from IT's Commercial Engineering and Construction Group business line through its own program entitled, the Specialty Services and Emergency Response (SSER) Program (see Figure 3). The SSER Program was developed to target and provide specialty and emergency response needs to clients who have a *national need, require a one call system, and wish to have all emergency services throughout its geographic expanse administered uniformly and consistently*. The specialty services portion of the program furnishes access to highly experienced personnel who solve high hazard or uniquely complex product issues for clients. High-hazard services generally include development and execution of project work plans which deal with reactive or explosive compounds under planned conditions.

Figure 3
Specialty Services and Emergency Response Program
Organizational Chart



N0007110

Specialty Services-type projects are differentiated from other planned work based on the fact that the award criteria is generally experience based versus priced base. Compressed gas transfers, remediation of carbon disulfide storage systems, hydrofluoric acid process tankage and piping, and tapping/venting white phosphorous railcars are just a few examples of Specialty Service-type projects completed under the SSER Program.

The SSER Program is capable of delivering high quality emergency response services to any customer on a nationwide basis due to an organized, national subcontractor network. IT's emergency response centers and subcontractor network locations can be found on the following Figure 4 map. This network of subcontractors includes many regional firms who have been providing emergency response services in specific areas of the country for several years. These firms have been screened and selected based on their ability to provide coverage within large specific geographic areas and their ability to complete emergency response work safely. The subcontractor network provides the means for IT to respond to clients requiring a single call system for all their emergency response needs in an economical manner. Rates and response procedures have been pre-negotiated and performance profiles/evaluations are continually updated based on a subcontractor's resources, on-call list, and safety performance.

2.2 EMERGENCY RESPONSE ACTIVATION

A client needing emergency response services calls 800-537-9540. This number is available 24 hours per day and is staffed around the clock by SSER department personnel. When a call first comes in, the client is asked to provide the location of the incident and is immediately connected to the Response Manager for that area.

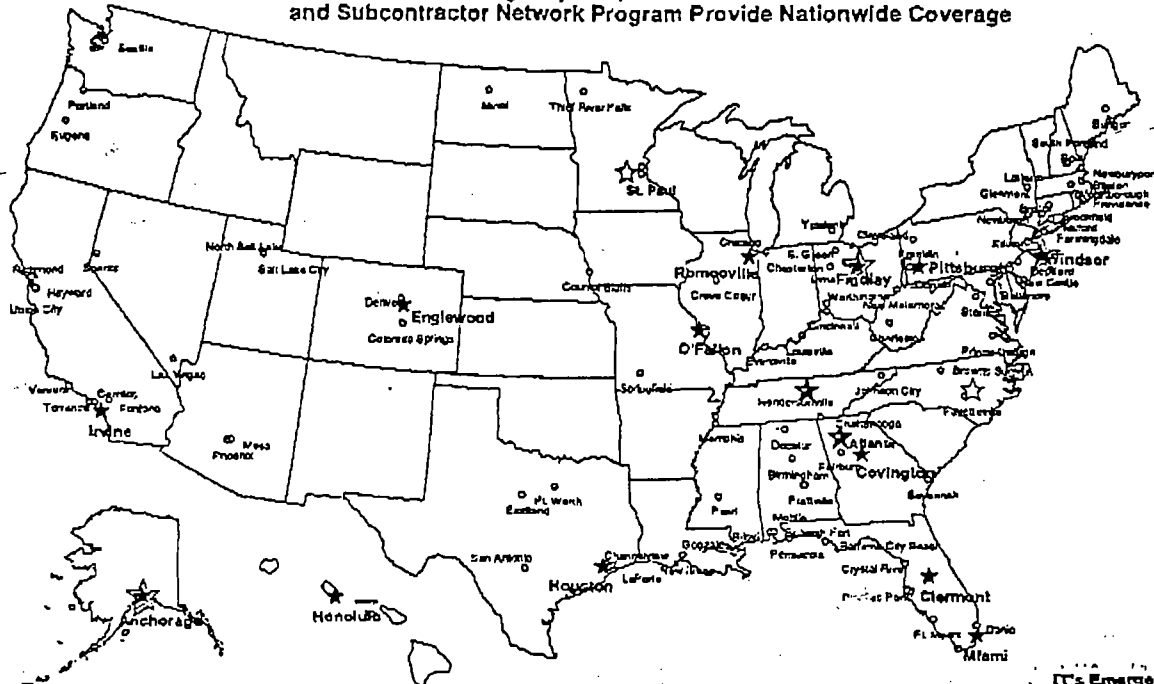
An IT Response Manager provides each client with a single point of contact to ensure uniformity of service. The manager provides oversight and management of IT and team subcontractor resources and a quality assurance/quality control (QA/QC) function for specific contract compliance issues.

After normal business hours (Mon-Fri 8am - 5pm), the SSER staff activates an after-hours, on-call system. This system identifies the Response Manager as well as secondary and tertiary response personnel by area, ensuring SSER security staff will process the client's call within minutes. In most cases, the client is directly transferred to the Response Manager.

All response personnel receiving calls from clients maintain a copy of the emergency response procedures manual, which includes:

- After-hour numbers and on-call lists for team subcontractors
- Client contract listings
- Team subcontractor resources
- After-hour numbers for specific emergency response material and equipment vendors
- Standard operating procedures and health and safety forms

IT's Emergency Response Centers
and Subcontractor Network Program Provide Nationwide Coverage



★ IT's Emergency Response Centers
○ Subcontractor Member Response Centers

Alameda County Response Center,
Alameda County Hazardous Waste Inc.,
City of Eureka
Constitutional Center, Inc.
Eagle Creek and Sons, Inc.
Eagle Creek and Sons, Inc.
Eagle Creek and Sons, Inc.

Emergency Center, Inc.
Eagle Creek and Sons, Inc.
Eagle Creek and Sons, Inc.
Eagle Creek and Sons, Inc.
Eagle Creek and Sons, Inc.
Eagle Creek and Sons, Inc.

★ IT's Transfer Trailer Locations
★ Subcontractor Member Transfer Trailer Locations

Alameda County Response Center,
Alameda County Hazardous Waste Inc.,
City of Eureka
Constitutional Center, Inc.
Eagle Creek and Sons, Inc.
Eagle Creek and Sons, Inc.

Alameda County Response Center,
Alameda County Hazardous Waste Inc.,
City of Eureka
Constitutional Center, Inc.
Eagle Creek and Sons, Inc.
Eagle Creek and Sons, Inc.

IT's Emergency Response
Solutions

1-800-537-9540

(24 hours/365 days per year)
or for more information write to:

IT Corporation
Specialty Services and
Emergency Response Program
16000 U.S. Route 224 East
Findlay, OH 45840

Figure 4
IT's Emergency Response Centers and Network Locations

The Response Manager, after verification of a contract, will ask the client a series of questions from the Spill Call Sheet, which is designed to expeditiously develop an understanding of the incident and to document client approval of the initial resources to be dispatched. Since Response Managers average more than 10 years of experience, they are well prepared to develop the initial plan of attack to handle the incident and assist the client to understand how the resources will be utilized and to anticipate the type of support required to execute cost-effective containment of the incident.